



# UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

### NOTICE OF ALLOWANCE AND ISSUE FEE DUE

023122 RATNER & PRESTIA P O BOX 980 VALLEY FORGE PA 19482 LM61/0915

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT		DATE MAILED
09/002,265	12/31/97	030	BROWN, R	2711	09/15/00
First Named Applicant VAN DER M	AL.	35 1	JSC 154(b) term ext. =	Ø Days	> a

TITLE OF

INVENTION MODULAR PARALLEL-PIPELINED VISION SYSTEM FOR REAL-TIME VIDEO PROCESSING

ATT	Y'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN.	TYPE S	SMALL ENTITY	FEE DUE	DATE DUE
							••	
2	D\$RC-0005	/SA 345-1	12.000 9	528 U	TILITY	NO	\$1210.00	12/15/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE, MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u>

#### **HOW TO RESPOND TO THIS NOTICE:**

- Review the SMALL ENTITY status shown above.
   If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
  - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
  - B. If the status is the same, pay the FEE DUE shown above.
- If the SMALL ENTITY is shown as NO:
- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number.

  Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



## UNITED STATES DEPARTMENT OF COMMERCE

### **Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR ATTORNEY		ATTORNEY DOCKET NO.		
097002,200	12/31/9/	VAN DER WAL		G	- <del>DSRC-0005/SA - </del>	
P 0 BOX 980		LM61/0915	٦	EXAMINER BROWN, R		
VALLEY FORG	E PA 19482	• •	·	ART UNIT 2711	PAPER NUMBER	
		·		DATE MAILED:	Ø9/15/ <b>ØØ</b>	

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

# Notice of Allowability

Application No. 09/002,265

Applicant(s)

Van Der Wal

Examiner

Reuben M. Brown

Group Art Unit 2711



All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.
∑ This communication is responsive to 6/19/2000
∑ The allowed claim(s) is/are 1-20 & 22-31, renumbered as 1-30.
The drawings filed on are acceptable.
☐ Acknowledgement is made of a claim for foleign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.
received in Application No. (Series Code/Serial Number)
$\square$ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
*Certified copies not received:
X Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE <b>THREE MONTHS</b> FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).
Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
Applicant MUST submit NEW FORMAL DRAWINGS
X because the originally filed drawings were declared by applicant to be informal.
including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or
including changes required by the proposed drawing correction filed on, which has been approved by the examiner.
including changes required by the attached Examiner's Amendment/Comment.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.
☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.
Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.
Attachment(s)
☐ Notice of References Cited, PTO-892
Information Disclosure Statement(s), PTO-1449, Paper No(s).
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
□ Notice of Informal Patent Application, PTO-152
☐ Interview Summary, PTO-413  XI Examiner's Amendment/Comment  SUPERVISORY PATENT EXAMINER
Examiner's Comment Regarding Requirement for Deposit of Biological Material  Statement of Reasons for Allowance
X: Examiner & Statement of Deasons for Allowands

Application/Control Number: 09/002,265

Art Unit: 2711

#20/D W. Laurer 9/15/10

#### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ken Nigon on September 9, 2000.

2. The application has been amended as follows:

### In the claims:

In claim 27, line 4, "synchronous or", has been deleted.

In claim 31, line 3, "synchronous or", has been deleted.

3. The following is an examiner's statement of reasons for allowance:

Considering claim 1, in the art of video processing at the time the invention was made, pipelined parallel processors controlled by a CPU or master processor were well known in the art,

Art Unit: 2711

for instance as taught by Gove. Nevertheless prior art of record does not show the combination of elements as recited in the instant claim 1, requiring a modular video processing system comprising a processing module containing at least one general purpose microprocessor, which controls hardware and software operations of the video processing system using configuration data and which processes video data; at least one video processing module which contains a plurality of parallel pipelined video hardware components, such that the video processing module is responsive to the configuration data to perform different video processing operations on the video data; wherein a global video bus establishes a direct connection between the processing module and the at least one video processing module to route the video data between the processing module & the at least one video processing module; and a global control bus which provides configuration data to/from the processing module from/to the at least one video processing module, such that the global control bus is separate from the global video bus.

Considering claim 2, the instant claim includes the limitations recited in claim 1 and the additional features of the video data coupled with associated video timing signals synchronized to a system clock signals, and that each video processing module comprises a crosspoint switch for routing the video data and its associated video timing signals to/from respective ones of the plurality of parallel pipelined video hardware components, wherein the timing signals indicate when the video data represents active video data. Claim 20 includes the same subject matter as claim 2, and is therefore allowable at least for the same reasons.

Application/Control Number: 09/002,265

Art Unit: 2711

Considering claim 27, the combination of Gove and Katsura discloses the features, except that Gove is directed to a method of controlling the pipelined components using a synchronous algorithm, whereas it would not have been obvious to modify Gove to operate in an asynchronous manner.

Page 4

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 09/002,265

Art Unit: 2711

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306, (for formal communications intended for entry)

Or:

(703) 308-6296 (for informal or draft communications, please label

Page 5

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. V.A., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on Monday thru Friday from 830am to 430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380. The fax phone number for this Group is (703) 308-6306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

ANDREW I. FAILE
SUPERVISORY PATENT EXAMINER
GROUP 2700